

## Remarks

### **I. INTRODUCTION**

No new matter has been added. Reconsideration of the present application is requested.

### **II. ALLOWABLE CLAIMS**

Applicants gratefully acknowledge the Examiner's indication that claims 7-14, 17, and 43-47 would be allowable if rewritten in independent form. Claims 7, 14, 17 and 43-47 have been rewritten in independent form. Claims 8-13 depend from claim 7. Claims 7-14, 17 and 43 are now in condition for allowance.

### **III. REJECTION OF CLAIMS 1-6, 15, 16, 18-25 AND 27-42 UNDER 35 U.S.C. § 103 OVER THE BARKER PATENT IN VIEW OF THE FEENEY PATENT**

Claim 1-6, 15, 16, 18-25 and 27-42 stand rejected under 35 U.S.C. § 103 as being obvious over U.S. Patent No. 5,717,943 to Barker et al. (the "Barker patent") in view of U.S. Patent No. 5,617,547 to Feeney et al. (the "Feeney patent"). Claims 1, 5, 6, 18, 22, and 23 have been amended to clarify the subject matter recited therein. Claims 19, 20 and 21 have been canceled, without prejudice. It is respectfully submitted that neither the Barker patent, nor the Feeney patent, alone or combined, renders obvious the subject matter of any of claims 1-6, 15, 16, 18, 22-25 and 27-42, for at least the following reasons.

As an initial matter, it is respectfully submitted that there is no suggestion in the prior art to combine the Barker patent with the Feeney patent in the manner suggested by the Examiner. The Barker patent relates generally to a massively parallel processor. The Feeney patent, however, relates to a bus architecture for allowing many individual individual workstations or PC systems to perform high-speed communications. It is respectfully submitted that a person of ordinary skill in the art seeking to improve an internal bus system of a massively parallel processor would not look to the external bus system described in the Feeney patent.

Moreover, even if the Barker patent and the Feeney

patent could be combined (a proposition with which Applicants do not agree), the combination would not render any of claims 1-6, 15, 16, 18, 22-25 and 27-43 obvious. For example, claim 1 recites the following:

. . . a plurality of nodes separating the bus segments and actively connecting and disconnecting at least two of the plurality of bus segments via at least one of i) a gate, ii) a switching element, iii) a driver, and iv) a resistor, each of the nodes including:

a respective routing table storing setup information for connections within the unit, and  
a respective monitoring unit independently verifying whether a connection can be set up within the unit. . .

Claims 2-6, 15 and 16 depend (directly or indirectly) from claim 1. The Examiner relies of Fig. 8, element 70 of the Feeney patent as disclosing the monitoring unit of claim 1. Respectfully, the Feeney patent does not teach or suggest a monitoring unit which independently verify whether a connection can be set up within a unit. First, as indicated above, the Feeney patent relates to a bus system for providing communication between individual work stations. See, e.g., col. 1, lines 35-39. Accordingly, the Feeney patent neither teaches nor suggests a respective monitoring unit independently verifying whether a connection can be set up **within a unit**.

Furthermore, claim 2 (and claims 5 and 6 which depend from claim 2) more specifically recites that the unit has a multi-dimensional cell architecture; thus, the recited monitoring unit verifies whether a connection can be set up within a multi-dimensional cell architecture. There is no suggestion that the switching apparatus 10 (in combination with element 70) could be used to verify connections within a multi-dimensional cell unit.

Claim 18 recites the following:

transmitting the data between cells of a module having a multi-dimensional cell architecture with synchronization via a plurality of bus segments . . . .

Claims 22-25 and 27-42 depend (directly or indirectly) from claim 18. With respect to the transmitting step, the Examiner relies on the Feeney patent. Respectfully, the Feeney patent does not relate in any way to multi-dimensional cell architectures. Thus, the Feeney patent does not teach or suggest transmitting data "between cells of a module having a multi-dimensional cell architecture . . ." as recited in claim 18.

With respect to claim 28, it is not clear which of the two references the Examiner is relying on with respect to applicants recited "lookup tables" which store connection data. However, it is respectfully submitted that neither of the cited references teach or suggest lookup tables in the context of the present invention.

In view of at least the foregoing, it is respectfully submitted that neither the Barker patent, nor the Feeney patent, alone or combined, renders obvious the subject matter of any of claims 1-6, 15, 16, 18, 22-25 and 27-42. Withdrawal of the rejection under 35 U.S.C. § 103 is, therefore, requested.

IV. CONCLUSION

In view of the foregoing, it is submitted that all of the pending claims are in condition for allowance. Passage to issuance is respectfully requested.

The Examiner is invited to contact the below-named attorney for any issues outstanding in the present application.

Respectfully submitted,

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